**Field Trip Information**

The Toronto Zoo offers a two-hour tour focused on the topic (Grade 11 – anthropology/evolution). They also provide information and activity downloads for the different topics they cover.

They do have age-appropriate programing, and have activities from grade K-12.

I am going to have a pre-, post-, and during activities where students will design their own animals for a specific habitat.

It addresses the ministry expectations through viewing animal adaptations, and unifying and distinguishing anatomical physiological characteristics. Going to the zoo allows students to SEE the animals in real life, instead of just in pictures.

**Animal Adaptation - SBI 3U**

*B3.4 – Explain key structural and functional changes in organisms as they have evolved over time*

*B3.3 – describe unifying and distinguishing anatomical and physiological characteristics of representative organisms from each of the kingdoms*

The same way that Dr. Frankenstein create himself a creature he hoped could live in the world, you will create an organism to live in a particular biome.

Objective: To create/design an organism that can successfully inhabit a particular biome

Procedure:

**Part A (Pre-Zoo)**

1. Choose a partner to work with. Choose wisely, as your mark will be shared
2. As a group you will research a biome in as much detail as possible (you cannot create an organism to live there unless you know everything about it, right?) Be sure to focus on abiotic/biotic factors present
3. Design an island with specific biome characteristics. Draw a picture of the island, and provide a description, which should include:

* Climate
* Biotic factors (include types of trees, grass, other organisms, etc)
* Abiotic factors (include bodies of water, terrain, amount of light, temperature, etc.)

**Part B (Zoo)**

1. Complete the handout during the zoo trip this handout is a part of the project and needs to be submitted with your final assignment

**Part C (Post-Zoo)**

1. Once all your research is collected, begin to design an organism with specific physical and behavioral characteristics that will make it successful in your biome
2. Create a visual of your organism using poster paper, construction paper, markers and any other materials you can. The more creative, the better!
3. Finally, prepare a presentation to share details of your biome and your organism to the class. Once again, make it creative!

**Things to consider with your organism**

* How will it acquire food?
* What adaptations to the climate does it have?
* Are there any predator or prey relationships related to it?
* Where will it live? (i.e. underground, in a tree, in a cave, etc.)
* How does it communicate?
* How is it mobile?

Assessment: Rubric

Please find the attached rubric. Look over it carefully to make sure nothing is missing!

Rubric:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **0** | **1** | **2** | **3** | **4** |
| **Island Biome Creation** | No visual or description provided | Island biome designed without sufficient detail | Island biome created with minimal detail | Island biome created with adequate detail | Island biome create with exceptional detail |
| **Zoo Worksheet** | Not submitted | Minimally completed | 50% completed | 75% completed | 100% completed |
| **Organism Poster and Presentation** | No visual description of organism or presentation | Organism created without sufficient detail or presentation doesn’t adequately explain the organism or the biome | Organism created with some detail and presentation somewhat informative | Organism has sufficient details and presentation informative on biome and organism | Organism has excellent detail and presentation both informative and entertaining |
| **Appropriateness of Organism** | Organism not at all suited for given biome | Organism minimally suited for given biome | Organism somewhat suited for given biome | Organism well suited for given biome | Organism excellently suited for given biome |
| **Group Work** (Learning skill – Teamwork – Peer evaluated) | **N** – not at all involved in group work | **S** – somewhat involved in group work | **G** – actively involved in group work contributing to all pieces | **E** – active member of group working on pieces and taking a leadership role |  |

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**Zoo Worksheet**

Find on Toronto Zoo website: <http://www.torontozoo.com/pdfs/Grade11_ZooBiodiverstiyActivities.pdf>

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**Zoo Information:**

Contact number for non-guided tours: 416 392 5929

Website for school booking information:

<http://www.torontozoo.com/EducationAndCamps/SchoolPrograms.asp?pg=107>

Ratio required by zoo: 1 teacher/ 10 students (grade 4-12)

Rate: $8/person, plus $8/teacher (class of 30 students = 3 teachers)

Zoo-mobile all-day pass (transport around the park) = $5/person

Available transportation = bus, $5/person (Max 47 people per bus, including teachers)